

Remarks

Claim 8 is amended. Claims 1 to 13 are pending in this application of which only claims 1 and 8 are in independent form.

Claim 8 is amended herein to incorporate all the features and limitations of claim 1 from which it had depended and claims 9 to 11 are all dependent from claim 8. Accordingly, claims 8 to 11 should now be allowable.

Claim 1 was rejected under 35 USC 102(b) as being anticipated by Niwa et al. The following will show that claim 1 patentably distinguishes the applicant's invention over this reference.

The applicant's invention according to claim 1 relates to an attachment pin for an exhaust-gas muffler which is threadably engaged with a winding in an apparatus part of the portable handheld work apparatus. The invention proceeds from a state of the art wherein the exhaust-gas muffler assumes considerable temperatures. The attachment pin functions as a thermal bridge which introduces heat from the exhaust-gas muffler into the comparatively cooler apparatus part. In the paragraph starting on page 1, line 16, of the applicant's disclosure, the applicant describes that this high introduction of heat via the attachment pin can lead to a creeping of the material of the apparatus part in the region of the attachment pin. This can cause the attachment pin to loosen in an unwanted manner.

To avoid this problem, the attachment pin of the invention includes a region having a cooling surface between the

exhaust-gas muffler and the apparatus part with this region being at least partially exposed. The threaded engagement of the attachment pin with the apparatus part is therefore relieved of thermal load whereby an unwanted loosening is avoided.

The applicant will now show that Niwa et al does not anticipate his invention.

Referring to the embodiments of FIGS. 3 and 4 of Niwa et al, an insulating plate 25 is attached to a support 28 by means of a fastening bolt 27. The arrangement shown in FIGS. 3 and 4 proceeds from the state of the art shown in FIG. 7 of this reference. There, an insulating plate 5 is fastened to a carrier 8. At column 1, lines 24 to 47, Niwa et al explains that the support 8 is a source of heat which is intended to be insulated utilizing the insulating plate 5. This heat source is an exhaust-gas pipe which is thermally insulated and which is here viewed as the support 8. Transferred to the embodiments of FIGS. 2 and 3 of Niwa et al, this means that the support 28 thereto constitutes an exhaust-gas pipe defining a heat source which is intended to be insulated via the insulating plate 25.

The arrangement shown in Niwa et al differs significantly from the attachment pin arrangement of the applicant's invention.

The fastening bolt 27 in Niwa et al is not threadably engaged in a part of an apparatus; instead, the fastening bolt 27 is threadably engaged in the hot exhaust-gas line 28. FIG. 3 of Niwa et al is submitted with this amendment as Exhibit A. The heat distribution and the heat flow is shown by arrows. At the side of the exhaust-gas pipe 28, a high temperature is present indicated by "++". On the other hand, on the outer side of the

insulating plate 25, a lower temperature level is indicated by "--". The resulting temperature drop leads to a thermal flow through the fastening bolt 27 which is indicated by an arrow. Since the fastening bolt 27 is threadably engaged in the exhaust-gas pipe 28, the thermal input from the exhaust-gas pipe 28 flows via the thread into the fastening bolt 27. This is precisely the opposite situation present in the attachment pin arrangement of the applicant's invention.

In the applicant's invention, the heat from the hotter exhaust-gas muffler is introduced into the colder apparatus part via the thread. For this reason alone, Niwa et al cannot anticipate the applicant's invention.

The foregoing notwithstanding, there are additional differences which result from the arrangement of the insulating plate at a distance from the exhaust-gas pipe 28 in Niwa et al.

A mid-temperature level, which is indicated in Exhibit A by "+", is present between the insulating plate 25 and the exhaust-gas pipe 28 because of the heat drop between the exhaust-gas pipe 28 and the outer side. This mid-temperature level is comparatively high because it lies on the inner side of the insulating plate 25. Insofar as one follows the argumentation in the action that a heat exchange takes place in the exposed region of the fastening bolt 27, the consequence set forth below results.

The region of the fastening bolt 27 is not covered by the insulating plate 25. Accordingly, a cooler temperature level adjusts which is indicated by "-" in Exhibit A. Thus, a thermal flow from the intermediate space between the insulating plate 25

and the exhaust-gas pipe 28 to the exposed region of the fastening bolt 27 takes place as shown by the curved arrow. The exposed surface of the fastening bolt 27 therefore does not operate as a cooling surface; instead, this exposed surface functions to take up heat from the immediate ambient. This is precisely opposite effect than is realized with the applicant's invention.

More specifically, nowhere in Niwa et al is there any suggestion which would enable our person of ordinary skill to hit upon the feature and limitation set forth in the last clause of applicant's claim 1, namely:

"said attachment pin including at least a partially exposed region, said region being disposed between said apparatus part and said exhaust-gas muffler and said region defining a cooling surface for conducting away at least a part of the heat which is introduced from the exhaust-gas muffler into the attachment pin via radiation and/or convection."

The above feature and limitation is nowhere suggested in Niwa et al so that claim 1 should now patentably distinguish the applicant's invention over this reference.

Claim 1 was also rejected under 35 USC 102(b) as being anticipated by, or in the alternative, under 35 USC 103(a) as being unpatentable over Wieland. The following will show that claim 1 also patentably distinguishes the applicant's invention over this reference.

FIG. 1 of Wieland shows an exhaust-gas muffler 25 which is attached to the cylinder of the engine with area contact via threaded fasteners. The threaded fasteners extend through the

exhaust-gas muffler 25 without leaving an exposed region between the muffler and the cylinder of the engine. Accordingly, Wieland cannot anticipate the applicant's invention.

In FIG. 2 of Wieland, threaded fasteners 35 are shown which, however, are not provided for attaching the exhaust-gas muffler but are for fastening the guide bar 32 of a saw chain. For this purpose, the sprocket wheel cover 34 is threadably fastened via stud bolts 35 to the apparatus part 24. The guide bar 32 is clamped between the sprocket wheel cover 34 and the apparatus part 24. This region bears no relationship to the exhaust-gas muffler shown in FIG. 1 of this reference. This region also is not subjected to any significant heat load so that Wieland cannot provide any suggestion to our person of ordinary skill to utilize the threaded bolts 35 for threadably fastening the exhaust-gas muffler 25 shown in FIG. 1.

In view of the above, applicant submits that claim 1 also patentably distinguishes his invention over Wieland when viewed in the context of obviousness.

Claim 3 was rejected under 35 USC 103(a) as being unpatentable over in Wieland in view of Brown.

The deficiencies of Wieland are discussed above and Brown cannot fill the void left thereby. The threaded bolts shown in Brown function to connect a flange without reference to a thermal load. The person of ordinary skill has no indication in Brown to apply the threaded bolts shown there to the fastening of the exhaust-gas muffler of Wieland. Accordingly, the subject matter of applicant's claim 3 is not rendered obvious by the combination of Wieland and Brown.

Claim 1 was also rejected under 35 USC 103(a) as being unpatentable over Fritchman in view of Gehring et al. The following will show that claim 1 also patentably distinguishes the applicant's invention over this combination of references.

Fritchman is directed to a hermetically closed refrigeration compressor. In FIG. 2 of this reference, a suction muffler 53 is connected via suction tubes (43, 44) to the intake region of a cylinder head 34. Applicant calls attention to the fact that Fritchman departs greatly from the subject matter of the applicant's invention in that this reference is not concerned with an internal combustion engine and especially not with an exhaust-gas muffler. Instead, Fritchman is directed to the connection of a suction muffler to a cylinder so that the problematic of heat entry, which is the basis of the applicant's invention, is nowhere suggested herein. Accordingly, Fritchman is unrelated to the applicant's invention.

The secondary reference, Gehring et al, cannot make up for the deficiencies of Fritchman.

The threaded bolts shown in Gehring et al, when applied to the compressor of Fritchman, lead to a situation wherein the heat from the comparatively warm cylinder is introduced into the cooler suction muffler. Accordingly, precisely the opposite thermal flow results than in the applicant's invention.

For the reasons advanced above, claim 1 can also not be rendered obvious by a combination of Fritchman and Gehring et al.

In view of the foregoing, applicant submits that claim 1 should now patentably distinguish his invention over the art of record and be allowable. Claims 2 to 7, 12 and 13 are all

dependent directly or indirectly from claim 1 so that these claims too should now be allowable.

Reconsideration of this application is earnestly solicited.

Respectfully submitted,



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## BEST AVAILABLE COPY

## Exhibit A

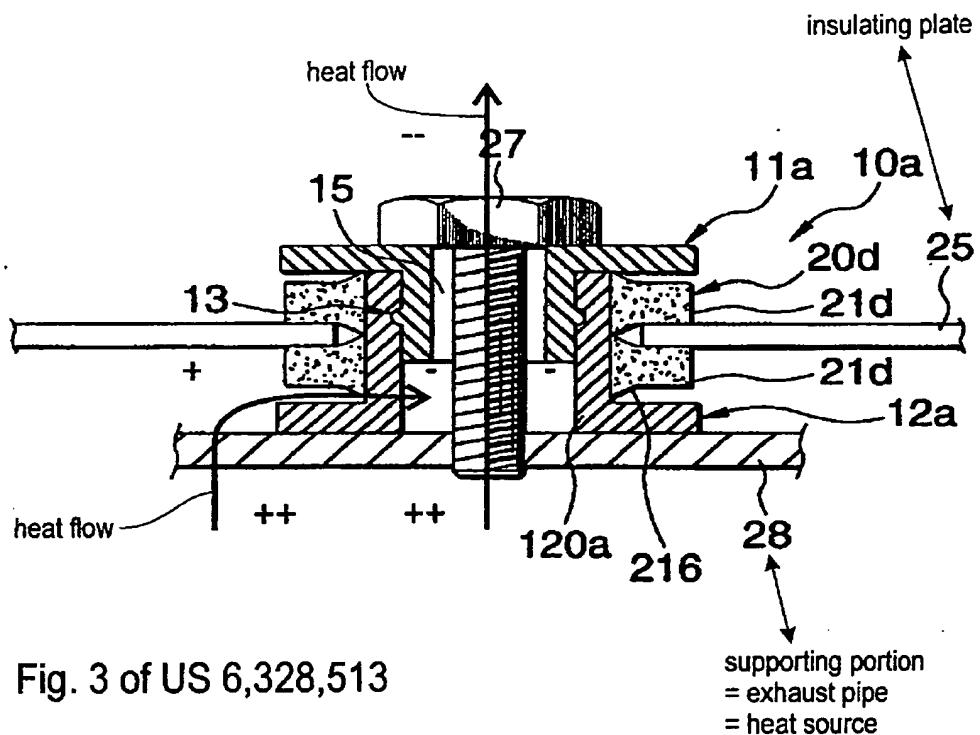


Fig. 3 of US 6,328,513